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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,759	05/26/2005	Gerd Maussner	2002P19550WOUS	2475

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SIEMENS CORPORATION
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EXAMINER	
BEVERIDGE, RACHEL E	
ART UNIT	**PAPER NUMBER**
1725	

DATE MAILED: 02/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/536,759	MAUSSNER ET AL.	
	Examiner	Art Unit	
	Rachel E. Beveridge	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11,12,14-20* is/are rejected.

7)☒ Claim(s) *13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 May 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/26/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: the applicant is inconsistent with reference numbers 4 and 7 regarding the groove (4) and filling element (7). On page 2, paragraph 0015, line 2 states, "groove 7." This should be changed to --groove 4.-- Also, on page 3, paragraph 0019, line 3 states, "filling element 4." This should be changed to --filling element 7.--

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11, 15-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodwater et al. (US 6,173,491 B1) in view of Litwinski et al. (US 6,237,835 B1).

With respect to claims 11, 15-20, Goodwater discloses a method for fixing turbine engine vanes with a component assembly that allows the replacement of airfoils and/or platforms with improved castings in the form of improved alloys or physical geometry, or both (Goodwater, abstract, lines 1 and 6-9). Goodwater discloses a welding method for repair of remaining cracks in the platforms of the turbine vanes, and further plugging all

cooling holes (38) in the platforms (4,6) (Goodwater, col. 4, lines 41-45). Goodwater discloses electron beam welding as a typical welding method used to weld the replacement airfoils to the stubs of the turbine engine vane platforms (Goodwater, col. 1, lines 61-63). Goodwater also discloses laser cladding the gaspath surfaces of the platforms, and states that laser cladding is a welding operation which applies a surface to a base material in which the surface has mechanical properties matching those of the base material (Goodwater, col. 5, lines 38 and 48-50). However, Goodwater lacks a holding element for keeping the plugs in the holes. Litwinski discloses a welding method that can be used for crack repair in a single workpiece (Litwinski, col. 1, lines 10-13). Litwinski teaches a backing member (40), as shown in figures 5 and 6, to be contoured to correspond to the contour [or lack of contour, figure 6] of the workpiece to be welded (Litwinski, col. 7, lines 47-49). Figures 5 and 6 show the backing member (40) to be a shape similar to that of the letter M. Furthermore, Litwinski discloses urging the backing member toward the weld zone, thus constraining the plasticized material within the weld zone (Litwinski, abstract, lines 14-16). Litwinski also discloses the backing member on the workpiece with a contact surface for the ends of the backing member (40), including rollers (46) and the support member (44). See figures 5 and 6. Litwinski teaches the backing support member to be movable relative to the workpiece (Litwinski, abstract, lines 22-23) and can therefore be placed there temporarily. Also, Litwinski's figures 5 and 6 show the backing member (40) with three contacting portions (44, 46) therefore generally holds the workpiece at each of these areas representing more than one holder, specifically three holders. Therefore, it would have been obvious

to one of ordinary skill in the art at the time of the invention to modify the crack repair method of Goodwater to include the holding apparatus of Litwinski in order to effectively support the weld zone and constrain the plasticized material within the weld zone during joining (Litwinski, col. 1, lines 62-66).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goodwater et al. (US 6,173,491 B1) and Litwinski et al. (US 6,237,835 B1) as applied to claim 1 above, and further in view of Eulenstein et al. (US 2001/0030224 A1).

With respect to claim 12, Goodwater and Litwinski lack disclosure of a spacer placed between the plug and the wall of the crack in the workpiece. However, Eulenstein discloses a foil with serves as a spacer between the components that are to be joined (Eulenstein, p. 2, paragraph 0015, lines 6-8). See the figures to observe the spacer. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined invention of Goodwater and Litwinski to include the spacer of Eulenstein in order to obtain a weld seam that is free of adverse effects (Eulenstein, p. 2, paragraph 0015, lines 8-10).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goodwater et al. (US 6,173,491 B1) and Litwinski et al. (US 6,237,835 B1) as applied to claim 1 above, and further in view of Edgington (US 4,386,051).

With respect to claim 14, Goodwater and Litwinski lack disclosure of a solder method for repairing the cracks. Edgington teaches a method utilizing a specific solder

composition which can be used to repair cracks in aluminum and aluminum alloy workpieces (Edgington, col. 4, lines 42-45). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined invention of Goodwater and Litwinski to include the solder method disclosed by Edgington in order to prepare better workpieces that can be used to create objects including boats, rafts, and aircrafts (Edgington, col. 4, lines 45-46).

Allowable Subject Matter

Claims 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the combined invention of Goodwater, Litwinski, and Eulenstein includes a spacer for the use in repairing cracks in a workpiece however the combined invention does not disclose arranging the spacer in the gap between the plug and the workpiece before the holder is fitted to begin the welding process. This specific step of placing the spacer in a gap before attaching a holder was not found in prior art and is therefore allowable subject matter.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel E. Beveridge whose telephone number is 571-

272-5169. The examiner can normally be reached on Monday through Friday, 9 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER

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